

Attorney Docket No.: J3674(C)
Serial No.: 10/538,188
Filed: June 9, 2005
Confirmation No.: 3266

REMARKS

In view of the amendments set forth above and the remarks that follow, reconsideration and allowance of the subject claims is respectfully requested.

Claim 1 has been amended to specify that the composition contains from 10 to 50% of cleansing surfactant. See, for example, page 16, lines 21 to 25. Claim 5 has been amended to spell out the abbreviation of HLB as "hydrophile/lipophile balance". See, for example, the specification at page 11, lines 13 to 15. Claim 7 has been amended to delete reference to the preferred range of amino functionality of the amino-functionalised silicone therein described; the deleted range is presented in new claim 15. Claims 12 and 14 have been cancelled without prejudice. Entry of the amended claims is respectfully requested.

Regarding the rejection of claim 1 under 35 USC 112, second paragraph, it is respectfully submitted that, in the context of the described aqueous hair conditioning compositions, the use of "discrete" in the phrase "discrete droplets" does not render the claim indefinite. In Webster's New Collegiate Dictionary, G&C Merriam Co., 1980, at pages 322-323, the first entry for the word is "constituting a separate entity: individually distinct". See attached. Given the generally understood meaning of the term, the description at page 7, lines 4 to 17 of the instant specification, and the exemplary preparative techniques described at pages 13 to 15, it respectfully submitted that, in the context of claim 1, "discrete" would be understood as describing silicone droplets that are distinct from the water phase of the compositions. Accordingly, this rejection is respectfully traversed and reconsideration thereof is respectfully requested.

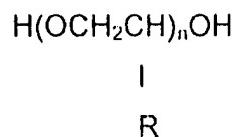
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Pursuant to the referenced Office Action, the then pending claims were rejected under 35 USC 103(a) as unpatentable over Evans et al. (US5,837,661) in view of Bolich Jr et al. (US5,965,115). This rejection is also respectfully traversed.

The compositions of the subject invention are aqueous hair conditioning compositions that contain a cleansing surfactant (present at relatively high levels), dispersed droplets comprising a water insoluble silicone conditioning oil having a Sauter mean diameter as more particularly described by the claims (i.e. a Sauter mean diameter of the droplets ($D_{3,2}$) of from 2 to 100 micrometres), and silicone based surface active block copolymer having polysiloxane and ethylene oxide blocks and represented by the formula: $\text{HO}(\text{CH}_2\text{CH}_2\text{O})_m[-\text{Si}(\text{CH}_3)_2-\text{O}-]_n(\text{CH}_2\text{CH}_2\text{O})_m\text{H}$. The use of the claimed silicone based surface active block copolymer has been found to provide compositions that afford a more selective deposition of the conditioning oil on the tip region of the hair relative to the root region.

Evans et al. is directed to shampoo compositions that contain silicone hair conditioning agents and polyalkylene glycols that have relatively high molecular weights. The polyalkylene glycols are described at column 14, line 51 to column 15 line 19:

The polyalkylene glycols suitable for use in the shampoo compositions are characterized by the general formula:



wherein R is hydrogen, methyl or mixtures thereof, preferably hydrogen and n is an integer having an average value of from about 1,500 to about 20,000, and more preferably from about 3,500 to 15,000...

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Specific examples of suitable polyethylene glycol polymers include PEG-2M wherein R equals hydrogen and has an average value of about 2,000...; PEG-5M wherein R is hydrogen and n has an average value of bout 5,000...; PEG-7M wherein R is hydrogen and n has an average value of bout 7,000...; PEG-9M wherein R is hydrogen and n has an average value of bout 9,000...; and PEG-14M where R is hydrogen and n has an average alue of about 14,000...

In Evans et al. the polyoxyalkylene polymers are disclosed as enhancing lather performance and spreadability of the shampoo compositions on hair. There is nothing in Evans et al. that discloses the silicone-based block copolymers of the subject claims.

Bolich et al. is directed to personal care compositions, e.g., hair care, skin care and nail care compositions that comprise: a polyorganosiloxane emulsion comprising a polyorganosiloxane of extremely small size (i.e., an average particles size of less than about 150 nanometers) and a surfactant system for dispersing the organopolysiloxane in the emulsion; a silicone-linear polyoxyalkylene block copolymer; and a carrier comprising a combination of first and second solvents as therein more particularly described. The polyorganosiloxane emulsion is further described as containing about 10 to about 70% by weight siloxane polymer (preferably about 20 to about 60%), about 0% to about 30% nonioionic surfactant, about 0 to about 30% by weight ionic surfactant, preferably about 0 to about 20%, with the balance of the emulsion being water. See column 5, line 63 to column 6, line 1.

The hair care compositions focused on by Bolich et al. are hair styling products such as hair sprays, mousses, gels, lotions and the like. At column 2, lines 46 to 50, the citation discloses as an object of the invention providing hair styling compositions that provide good style retention without unacceptable stiffness or stickiness and

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another object as providing hair styling compositions that look and feel natural. At columns 15 to 22 Bolich et al. discloses a variety of different styling polymers for use in the hair styling products therein disclosed.

The Office Action characterizes the Bolich et al. compositions as containing silicone particles that are smaller than the instant claims, but maintains that it would have been obvious to use the silicone copolymer therein disclosed as a surfactant in Evans et al. to provide compositions of improved stability.

It is respectfully submitted that the relatively high molecular weight polyoxyalkylene polymers of Evans et al., are generally known in the art class of materials understood as thickeners. High-molecular weight polyoxyethylene would not be expected to have the same hydrophobic/lipophobic character and would typically be recognized as representing a different class of materials from the silicone-linear polyoxyalkylene block copolymer surfactants of Bolich et al. In Bolich et al., the silicone-polyoxyalkylene copolymer surfactant is disclosed as improving the stability of the polyorganosiloxane emulsion. Thus, not only are their respective polyoxyalkylene polymers and silicone-linear polyoxyalkylene block copolymer surfactants different chemically and functionally, Evans et al. and Bolich et al. focus on very different types of hair care products into which these materials are incorporated.

Conditioning oil particle size is a factor that can impact the activity that takes place at the oil/water interface of an aqueous hair conditioning composition. The activity at the oil water interface can also be impacted by the other components present in the composition and the amounts thereof. As noted by the Office Action, the particle size of the silicone conditioning oil of Bolich et al. is smaller than in the present invention. Moreover, its overall teaching regarding those surfactants that might be considered

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are employed in compositions described by the subject claims. Regarding surfactants generally, beginning at column 23, Bolich et al. states same:

The personal care compositions hereof can contain one or more surfactants, e.g., for emulsifying hydrophobic components which may be present in the composition. Surfactants are preferred for use in mousse products. Generally, if used such surfactants will be used at a total level of from about 0.01% to about 10%, preferably from about 0.01% to about 5% and more preferably from about 0.01% to about 3%, by weight of the composition. A wide variety of surfactants can be used, including anionic, cationic, amphoteric, and zwitterionic surfactants.

The patent goes on to list examples of different types of suitable surfactants, including various ionic and nonionic materials noting, at column 25, lines 5 to 6, that additional suitable surfactants include those described in reference to the silicone emulsion component of its composition.

It is respectfully submitted that there is nothing in Evans et al. or Bolich et al. that discloses or suggests the instantly claimed combination of cleansing surfactant, silicone conditioning oil and silicone block copolymer let alone the combination as a means of providing compositions that afford selective deposition of conditioning agent at the hair tips from a composition containing the relatively high levels of cleansing surfactant, or the attainment of selective disposition using such composition in a method wherein hair is treated with a high surfactant content composition and rinsed.

In light of the above amendments and remarks, it is respectfully requested that the application be allowed to issue.

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If a telephone conversation would be of assistance in advancing the prosecution of the present application, applicants' undersigned attorney invites the Examiner to telephone at the number provided.

Respectfully submitted,



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